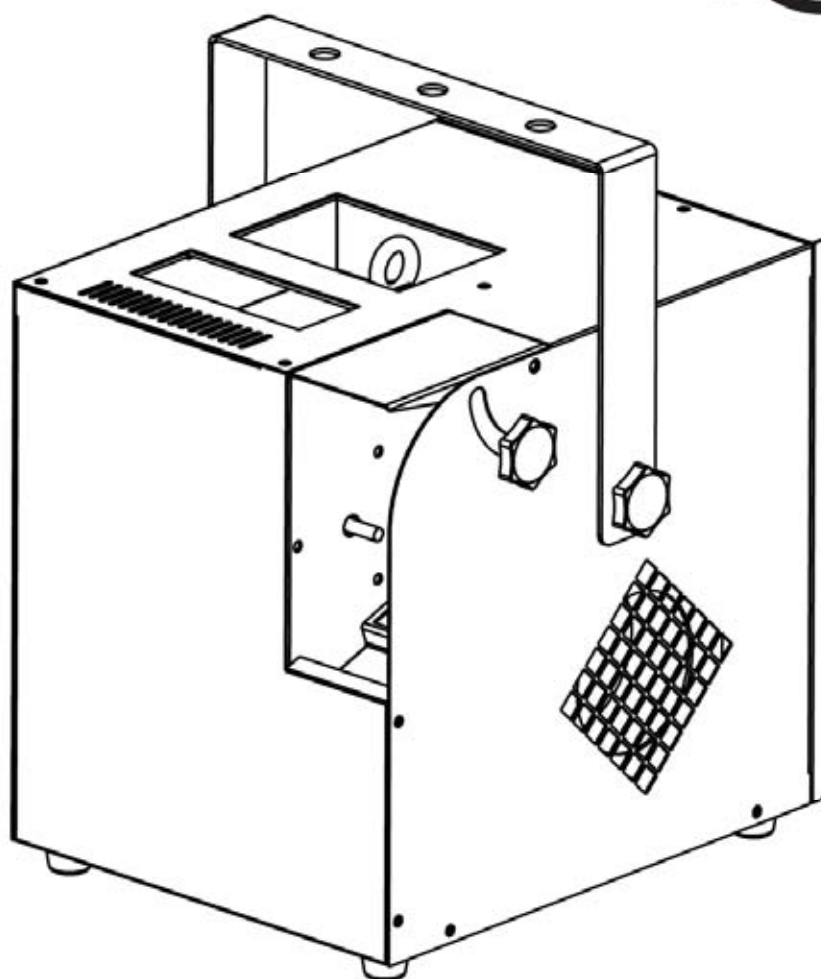




## *User Manual*



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Value • Innovation • Performance

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# 1. BEFORE YOU BEGIN

## What Is Included

- 1 x Hurricane™ Haze 2D
- 1 x Power Cord
- 1 x Wired Remote (15 ft length)
- 1 x Warranty Card
- 1 x User Manual

## Unpacking Instructions

Immediately upon receiving this product, carefully unpack it and check the container in which you received it. Make sure that you have received all the parts indicated above and that they are all in good condition. If the material inside the container (this product and any other accessory included with it) appears damaged from shipping, or if the container shows signs of mishandling, notify the shipper immediately. In addition, retain the container and all the packing material for inspection.

## Claims




The carrier is responsible for any damage incurred during shipping to this product or any part that shipped with it. Therefore, if the received merchandise appears to have damages caused during shipping, the customer must submit the damage report and any related claims with the carrier, not CHAUVET®. The customer must submit the report upon reception of the damaged merchandise. Failure to do so in a timely manner may invalidate the customer's claim with the carrier.

For other issues such as missing components or parts, damage not related to shipping, or concealed damage, the customer must make claims to CHAUVET® within seven (7) days of receiving the merchandise.

## Text Conventions

Convention	Meaning
<Menu>	A key to be pressed on the product's control panel
1~512	A range of values
50/60	A set of values of which only one can be chosen
<i>Settings</i>	A menu option not to be modified (for example, showing the operating mode/current status)
<i>Menu &gt; Settings</i>	A sequence of menu options to be followed
ON	A value to be entered or selected

## Icons

Icon	Meaning
	This paragraph contains critical installation, configuration, or operation information. Failure to comply with this information may render the product partially or completely inoperative, cause damage to the product, or cause harm to the user.
	This paragraph contains important installation or configuration information. Failure to comply with this information may prevent the product from functioning correctly.
	This paragraph reminds you of useful, although not critical, information.

## Document Information

The information and specifications contained in this document are subject to change without notice. CHAUVET® assumes no responsibility or liability for any errors or omissions that may appear in this manual.

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Author	Editor
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## Product at a Glance

Use on Dimmer	⊘	Auto Programs	⊘
Outdoor Use	⊘	Auto-ranging Power Supply	⊘
Sound Activated	⊘	Replaceable Fuse	✓
DMX	✓	User Serviceable	⊘
Master/Slave	⊘	Duty Cycle	⊘

## Safety Notes



**Please read the following notes carefully because they include important safety information about the installation, usage, and maintenance of this product.**

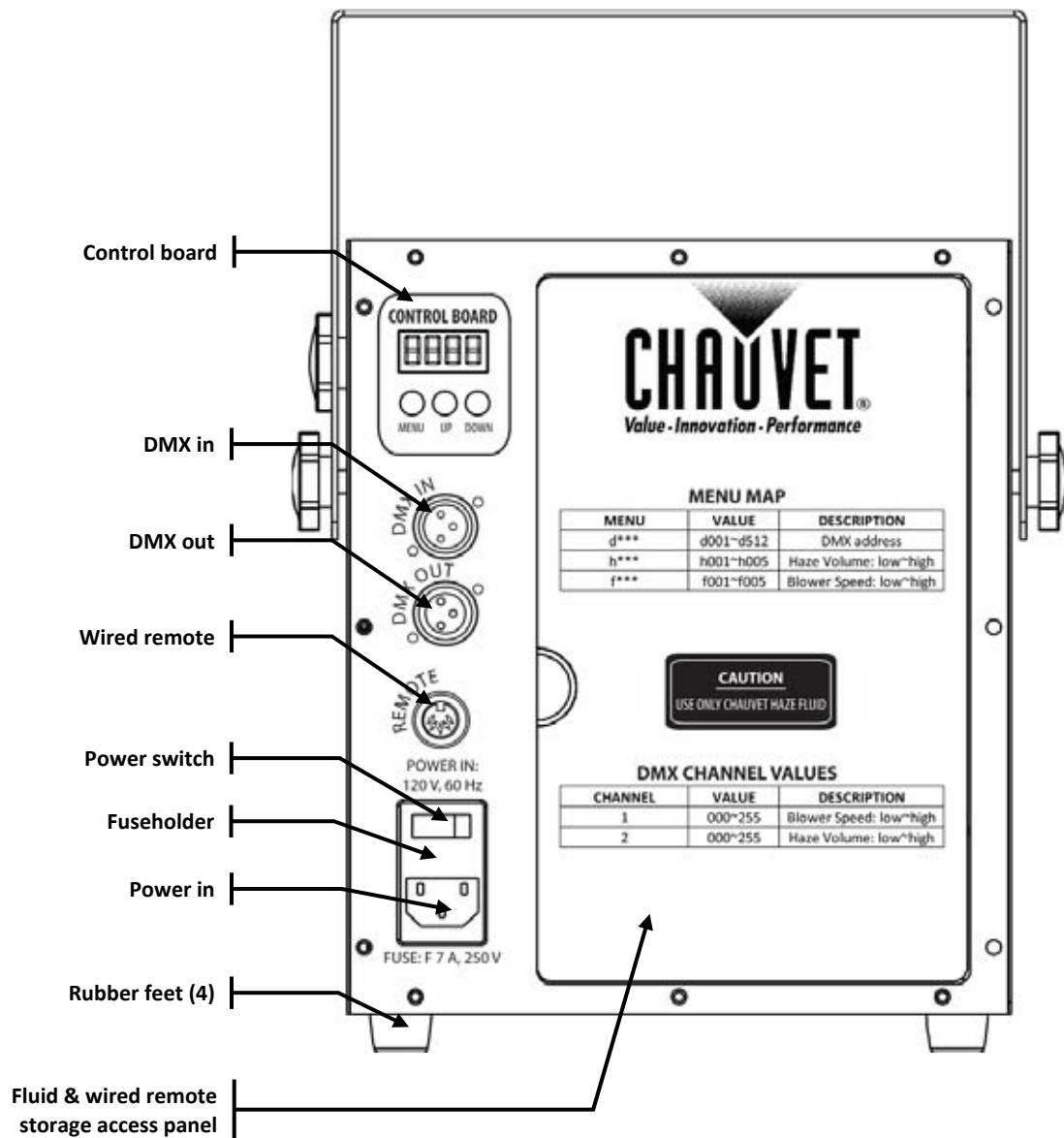
- Keep this User Manual for future consultation. If you sell this product to another user, be sure that they also receive this document.
- Always make sure that the voltage of the outlet to which you are connecting this product is within the range stated on the decal or rear panel of the product.
- This product is for indoor use only! To prevent risk of fire or shock, do not expose this product to rain or moisture.
- Make sure there are no flammable materials close to the unit while operating.
- Always install this product in a location with adequate ventilation, at least 20 in (50 cm) from adjacent surfaces.
- Be sure that no ventilation slots on the unit's housing are blocked.
- Always disconnect this product from the power source before cleaning it or replacing the fuse.
- Make sure to replace the fuse with another of the same type and rating.
- If mounting this product overhead, always secure it to a fastening device using a safety cable.
- The maximum ambient temperature (Ta) is 104° F (40° C). Do not operate this product at higher temperatures.
- In the event of a serious operating problem, stop using the unit immediately.
- Never try to repair this product. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center.
- Never connect this product to a dimmer pack.
- Make sure the power cord is not crimped or damaged.
- Never disconnect the power cord by pulling or tugging on the cord.
- Do not touch the output nozzle on this product. It is very hot during operation and it may remain hot for several hours after turning the unit off.
- Do not mount this product on a flammable surface (e.g., wood, linoleum, carton, plastic, or carpet).
- Make sure there are no flammable materials close to the unit while operating.
- Depending on the amount of fog/haze generated, all fog machines may set off smoke detectors.
- Do not use for space heating purposes.



**FCQ (Fog Cleaner Quart) was specifically developed by Chauvet to clean your Hurricane™ Haze 2D. Make sure you use FCQ regularly to increase the life of your product.**

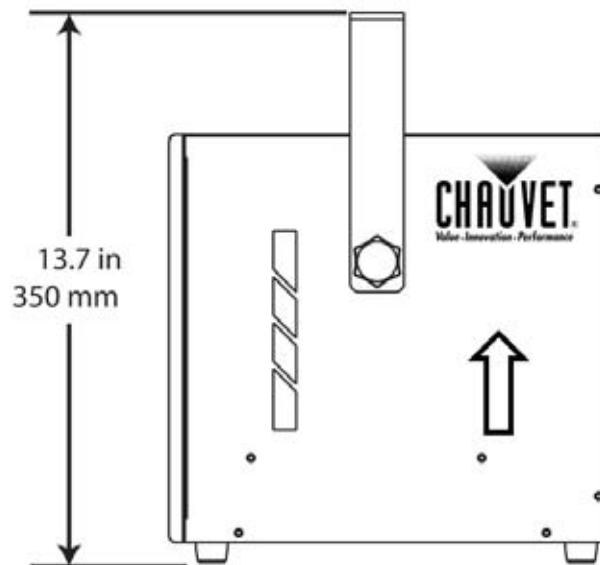
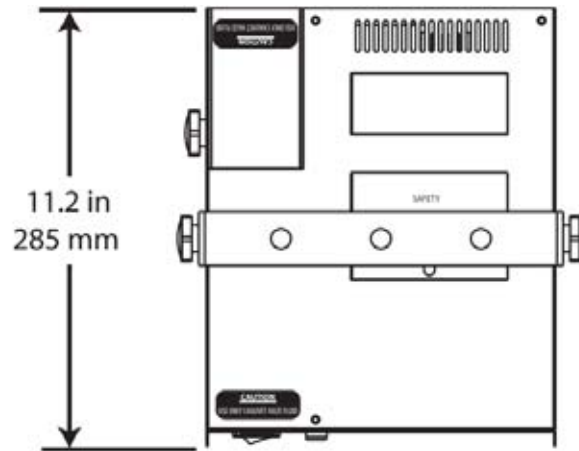
## 2. INTRODUCTION

### Product Overview



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## Product Dimensions



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## 3. SETUP

### AC Power

This product can work with an input voltage of either 120 VAC, 60 Hz or 230 VAC, 50 Hz.

To determine the power requirements for a particular product, see the label affixed to the back plate of the product or refer to the product's specifications chart. The listed current rating indicates the product's average current draw under normal conditions.



**Always connect this product to a protected circuit (circuit breaker or fuse), making sure that it has an appropriate electrical ground to avoid the risk of electrocution or fire.**



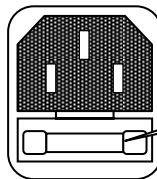
**Never connect this product to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel serves only as a 0 to 100% switch.**

### Fuse Replacement



**Disconnect this product from the power outlet before replacing the fuse.**

1. Wedge the tip of a flat head screwdriver into the slot of the fuse holder and pry the fuse out of the housing.
2. Remove the blown fuse from the holder and replace with a fuse of the exact same type and rating.
3. Insert the fuse holder back in place and reconnect power.



The fuse is located inside this compartment.



**Always replace a blown fuse with a good fuse of the same type and rating.**

---

## Mounting

### Orientation

The Hurricane™ Haze 2D may be mounted in any position provided there is adequate room for ventilation around it.

### Rigging

Be sure that the structure or surface onto which you are mounting this product can support its weight. Please see the “Technical Specifications” section of this manual for weight information.

Make sure to mount the product securely to a rigging point, whether an elevated platform or a truss.

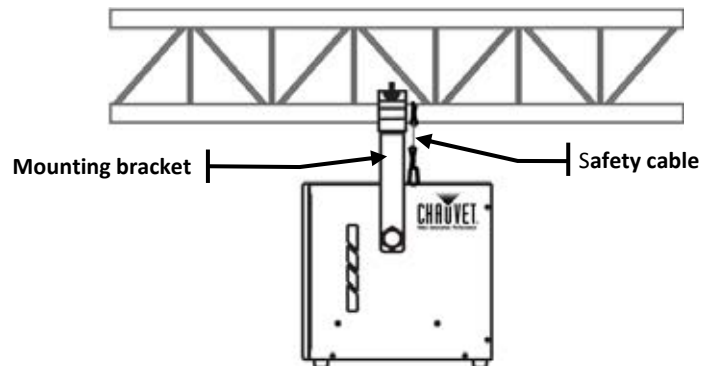
When rigging this product onto a truss, you should use a mounting clamp of appropriate weight capacity. The bracket has a 13 mm hole, which is appropriate for this purpose.

When mounting this product overhead, always use a safety cable.

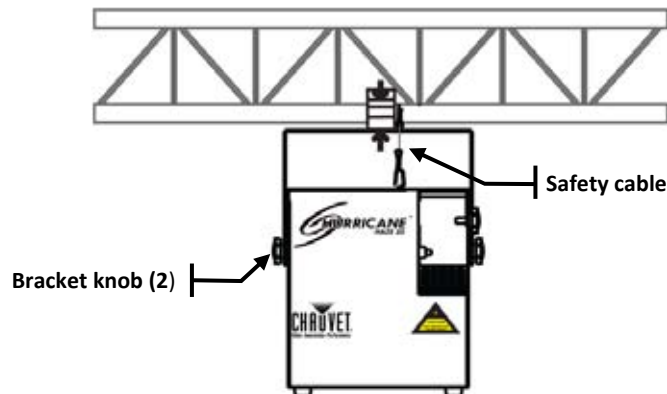
Before deciding on a location for this product, always make sure that it will be easy to access the unit for maintenance and programming purposes.

When power linking multiple products, you must always consider the length of the power linking cable and mount the products close enough for the cable to reach them.

The bracket knobs allow for directional adjustment when aiming the product to the desired angle. Only loosen or tighten the bracket knobs using your bare hands. Using tools could damage the knobs.



**Mounting Diagram**



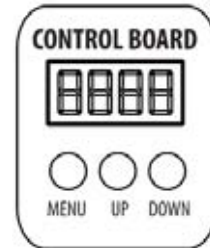


## 4. OPERATION

### Control Panel Operation

To access the control panel functions, use the four buttons located underneath the display.

Button	Function
<MENU>	Press to scroll through the operating modes
<UP>	Press to find a higher value
<DOWN>	Press to find a lower value



**Important note regarding the priority level for the three types of methods used to control the operation of your Hurricane™ Haze 2D.**

If using the remote control and the digital display is touched, the digital display will take priority control. If using the digital display, and then connect the product to a DMX controller, the DMX will take priority control. The priority control levels are:

1. DMX
2. Digital display
3. Remote controller

### Remote Operation

**Important:** Using the Control Board, set the Fan and Haze output to 0. You can then connect and operate the remote with the Hurricane Haze 2D.

### Menu Map

Mode	Programming Steps		Description
<b>DMX Mode</b>	<b>d***</b>	<b>001~512</b>	Selects the DMX starting address
<b>Manual Mode</b>	<b>Haze Volume</b>	<b>h001~h005</b>	Low~high
	<b>Blower Speed</b>	<b>f001~f005</b>	Low~high

### Configuration (DMX)

Set this product in DMX mode to control it with a DMX controller.

1. Connect this product to a suitable power outlet.
2. Turn this product on.
3. Connect a DMX cable from the DMX output of the DMX controller to the DMX input socket of this product.

### Starting Address

When selecting a starting DMX address, always consider the number of DMX channels the selected DMX mode uses. If you choose a starting address that is too high, you could restrict the access to some of the product's channels.

The Hurricane™ Haze 2D uses 2 DMX, which defines the highest configurable address to 511.

If you are not familiar with the DMX protocol, you may refer to the “DMX Primer” section in the “Technical Information” chapter.

To select the starting address, do the following:

1. Press <MENU> repeatedly until **d\*\*\*** shows on the display.
2. Use <UP> or <DOWN> to select the starting address.
3. Press <ENTER>.

---

## Configuration (Standalone Mode)

Set this product in one of the standalone modes to control it without a DMX controller.

1. Connect this product to a suitable power outlet.
2. Turn this product on.

### Manual Mode



**Never connect a product that is operating in any standalone mode, whether Static, Automatic, or Sound to a DMX string connected to a DMX controller. Products in standalone mode may transmit DMX signals that could interfere with the DMX signals from the controller.**

To enable the Automatic Mode, follow the instructions below:

1. Press **<MENU>** repeatedly until **h\*\*\*** shows on the display.
2. Use **<UP>** or **<DOWN>** to adjust the haze volume.
3. Press **<MENU>** repeatedly until **f\*\*\*** shows on the display.
4. Use **<UP>** or **<DOWN>** to adjust the blower speed.

## DMX Channel Assignments and Values

### 2-CH

Channel	Function	Value	Setting
1	Blower speed	000 ⇄ 255	Low~high
2	Haze volume	000 ⇄ 255	Low~high

---

## 5. TECHNICAL INFORMATION

### General Maintenance

Do not allow the haze machine to become contaminated. After every 40 hours of continuous operation, it is recommended to run a cleaning solution composed of 80% distilled water and 20% distilled vinegar through the system to prevent the accumulation of particulate matter in the heating element.

The recommended cleaning regimen is as follows:

1. Empty all haze liquid from the machine.
2. Add cleaning solution to tank.
3. Plug unit in and allow it to warm up.
4. Run the unit in a well-ventilated area until the tank is almost empty. Do not allow the pump to run dry.
5. Cleaning is now complete. Refill with haze liquid. Run the machine briefly to clear any cleaning solution from the pump and heater.



**FCQ (Fog Cleaner Quart) was specifically developed by Chauvet to clean your Hurricane™ Haze 2D. Make sure you use FCQ regularly to increase the life of your product.**

### Storage

Before storing this product, run distilled water (not tap water) through the system as described in the cleaning method above. This will help to avoid any particles condensing inside the pump or heater.

It is strongly recommended to test-run the machine on a monthly basis in order to achieve its best hazing condition.

## General Troubleshooting

Symptom	Possible Cause	Possible Action
Circuit breaker or fuse keeps blowing	<ul style="list-style-type: none"> <li>Excessive load on the circuit</li> </ul>	<ul style="list-style-type: none"> <li>Make sure that the total load does not exceed 80% of the breaker or fuse nominal current</li> </ul>
	<ul style="list-style-type: none"> <li>Short circuit along the power lines</li> </ul>	<ul style="list-style-type: none"> <li>Check the power lines and power cords</li> </ul>
Product does not power up	<ul style="list-style-type: none"> <li>No energy on power outlet</li> </ul>	<ul style="list-style-type: none"> <li>Check power outlet</li> <li>Change to another outlet</li> </ul>
	<ul style="list-style-type: none"> <li>Loose or damaged power cord</li> </ul>	<ul style="list-style-type: none"> <li>Check the power cord</li> </ul>
	<ul style="list-style-type: none"> <li>Blown fuse</li> </ul>	<ul style="list-style-type: none"> <li>Replace blown fuse with a good one of the same type and rating</li> </ul>
	<ul style="list-style-type: none"> <li>Internal problem</li> </ul>	<ul style="list-style-type: none"> <li>Send product for repair</li> </ul>
Product does not respond to DMX	<ul style="list-style-type: none"> <li>Wrong starting address on the product</li> </ul>	<ul style="list-style-type: none"> <li>Set the correct starting address on the product</li> <li>Use the right fader(s) on the controller</li> </ul>
	<ul style="list-style-type: none"> <li>Wrong DMX personality on the product</li> </ul>	<ul style="list-style-type: none"> <li>Set the correct DMX product's personality</li> <li>Assign the faders accordingly</li> </ul>
	<ul style="list-style-type: none"> <li>Wrong polarity setting on the DMX controller</li> </ul>	<ul style="list-style-type: none"> <li>Change the signal polarity on the controller</li> </ul>
	<ul style="list-style-type: none"> <li>Loose or damaged DMX cable</li> </ul>	<ul style="list-style-type: none"> <li>Check the DMX cable before the faulty unit</li> </ul>
	<ul style="list-style-type: none"> <li>Internal problem</li> </ul>	<ul style="list-style-type: none"> <li>Send product for repair</li> </ul>
Intermittent DMX Problems	<ul style="list-style-type: none"> <li>Signal cables are not DMX compatible</li> </ul>	<ul style="list-style-type: none"> <li>Replace non DMX cables with true DMX cables</li> </ul>
	<ul style="list-style-type: none"> <li>Interference with AC or radio signals</li> </ul>	<ul style="list-style-type: none"> <li>Keep DMX cables away from AC wires or radio equipment</li> </ul>
	<ul style="list-style-type: none"> <li>DMX cable too long</li> </ul>	<ul style="list-style-type: none"> <li>Install an optically coupled DMX amplifier right before the product with intermittent problems</li> </ul>
	<ul style="list-style-type: none"> <li>Too many products connected</li> </ul>	<ul style="list-style-type: none"> <li>Install an optically coupled DMX amplifier after unit #32</li> </ul>
	<ul style="list-style-type: none"> <li>Terminator not connected</li> </ul>	<ul style="list-style-type: none"> <li>Install a terminator, as indicated in the "DMX Primer" section.</li> </ul>



**If you still experience problems after trying the above solutions, contact CHAUVET® Technical Support.**

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## Returns Procedure

The user must send the merchandise prepaid, in the original box, and with its original packing and accessories. CHAUVET® will not issue call tags.

Call CHAUVET® and request a Return Merchandise Authorization (RMA) number before shipping the product. Be prepared to provide the model number, serial number, and a brief description of the cause for the return.

The user must clearly label the package with a Return Merchandise Authorization (RMA) number. CHAUVET® will refuse any product returned without an RMA number.



**DO NOT write the RMA number directly on the box. Instead, write it on a properly affixed label.**

Once you have received the RMA number, please include the following information on a piece of paper inside the box:

- Your name
- Your address
- Your phone number
- The RMA number
- A brief description of the problem

Be sure to pack the product properly. Any shipping damage resulting from inadequate packaging will be the customer's responsibility. As a suggestion, proper UPS packing or double-boxing is always a safe method to use.



**CHAUVET® reserves the right to use its own discretion to repair or replace returned product(s).**

## Contact Information

### World Headquarters

CHAUVET®

#### General Information

Address: 5200 NW 108th Avenue  
Sunrise, FL 33351  
Voice: (954) 929-1115  
Fax: (954) 929-5560  
Toll free: (800) 762-1084

#### Technical Support

Voice: (954) 929-1115 (Press 4)  
Fax: (954) 756-8015  
Email: [tech@chauvetlighting.com](mailto:tech@chauvetlighting.com)

#### World Wide Web

[www.chauvetlighting.com](http://www.chauvetlighting.com)

### United Kingdom & Ireland

CHAUVET® Europe Ltd.

#### General Information

Address: Unit 1C  
Brookhill Road Industrial Estate  
Pinxton, Nottingham, UK  
NG16 6NT  
Voice: +44 (0)1773 511115  
Fax: +44 (0)1773 511110

#### Technical Support

Email: [uktech@chauvetlighting.com](mailto:uktech@chauvetlighting.com)

#### World Wide Web

[www.chauvetlighting.co.uk](http://www.chauvetlighting.co.uk)

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## DMX Primer

The USITT DMX512-A data transmission protocol (DMX, from now on) is based on the EIA-485 standard and it has 512 channels (001 to 512). This system requires a controller (DMX controller), one or more DMX compatible products, and a DMX circuit (also known as “DMX universe”) to link the products to the controller.

Depending on their complexity and features, DMX compatible products may require from one to more than 30 DMX channels to operate. Some DMX products have multiple operation modes (also known as “personalities”), each with its own number of channels and controllable parameters.

### Starting Address

In the DMX system, the controller sends DMX data to each product based on the product’s starting address. The starting address is the number of the DMX channel (001 to 512) assigned to the product’s first control channel (Channel 1). When assigning starting addresses to multiple products, it is critical to ensure that no starting address is already in use by another product to prevent channels from overlapping. Otherwise, the affected products may operate erratically.

For instance, a user has two DMX compatible products. Product “A” has four channels and product “B” has six channels. If the user configures the starting address of product “A” to “001”, channels 001 through 004 on the DMX controller will control product “A”. This means that the user should assign the starting address of product “B” to “005” or higher. For a starting address of “005”, the DMX controller would use channels 005 to 010 to control product “B”.

It is possible to control multiple products of the same type by assigning each one of them the same starting address. In this case, all the products would respond in unison (synchronized) to the signals from the DMX controller.

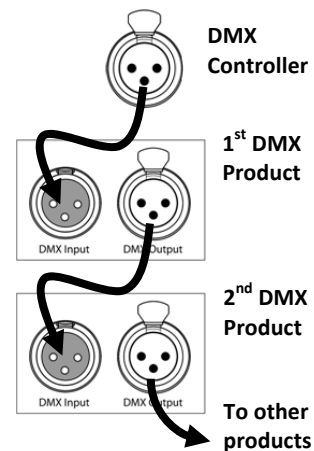
### Product Linking (Daisy Chain)

DMX compatible products receive the control signals from the DMX controller through the DMX cables. Each product has a DMX In and a DMX Out connector. The figure to the right illustrates how the products link to each other using multiple segments of DMX cable in a sequential format called “daisy chain”.

The order in which the products connect to the DMX controller is irrelevant because all products receive the same DMX signals and they only respond to them based on their individual starting addresses. However, it is important to notice that the connections between products should always be as short and direct as possible.

To ensure the integrity of the DMX signal, follow the recommendations of the EIA-485 standard:

- The maximum recommended cable length is 500 m (1,640 feet).
- The maximum recommended number of products on the same daisy chain is 32.



**Connecting more than 32 products on one daisy chain without the use of a DMX optically-isolated splitter may result in deterioration of the digital DMX signal.**

---

## DMX Cabling

The DMX protocol requires using special data cables to accommodate for the high speed digital signals it uses. Despite their apparent similarities, data cables are electrically different from standard microphone cables because they can carry high frequency digital signals and have better protection against electromagnetic interference. You can purchase CHAUVET® certified DMX cables directly from a dealer/distributor or make your own DMX cable.

If you choose to make your own DMX cable, you must use a data-grade cable such as the Belden 9841, which has the following electrical characteristics:

Type:	shielded, 2-conductor twisted pair
Maximum capacitance between conductors:	30 pF/ft
Maximum capacitance between conductor and shield:	55 pF/ft
Maximum resistance:	20 ohms/1000 ft
Nominal impedance:	100~140 ohms

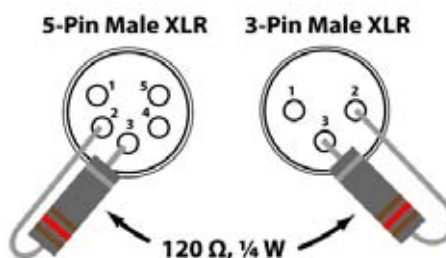
### DMX Connectors

Each DMX cable must have a male XLR connector on one end and a female XLR connector on the other end. The DMX protocol indicates that the XLR connectors must have five pins. However, most lighting products use the 3-pin XLR connector. The pin assignment of the 3-pin and 5-pin XLR connectors in a DMX cable is as follows:

Male Plug					Female Plug				
Signal	3-Pin		5-Pin		5-Pin		3-Pin	Signal	
Common	1	—	1	—	1	—	1	Common	
Data -	2	—	2	—	2	—	2	Data -	
Data +	3	—	3	—	3	—	3	Data +	
Not used			4	—	4			Not used	
Not used			5	—	5			Not used	

You can use the above table to create a 3-pin/3-pin cable, a 5-pin/5-pin cable, or a 3-pin to 5-pin adapter.

The DMX daisy chain uses a terminator to reduce signal transmission problems, especially with long cables. The terminator consists of either a 3-pin or 5-pin XLR male plug with a 120  $\Omega$ , ¼ W resistor connected to the wire side of pins 2 and 3, as shown below.



The terminator plug connects to the DMX Out socket of the last DMX product in the daisy chain.



**Do not allow the common wire of the DMX cable to touch the product's chassis ground. This could cause a ground loop, which may affect your products' performance. Test all DMX cables with an ohmmeter to verify the correct polarity of the wires, and to make sure that they are not touching the shield or each other.**

## 6. TECHNICAL SPECIFICATIONS

### Dimensions and Weight

Length	Width	Height	Weight
11.2 in (285 mm)	10.5 in (267 mm)	13.7 in (350 mm)	18.7 lbs (8.5 kg)

**Note:** Dimensions in inches rounded to the nearest decimal digit.

### Power

Power Supply Type	Range	Voltage Selection
Magnetic (internal)	120 V, 60 Hz or 230 V, 50 Hz	None (Fixed voltage)
Parameter	120 V, 60 Hz	230 V, 50 Hz
Consumption	533 W (4.4 A)	580 W (3.0 A)
Fuse size	F 7, 250 V	F 5, 250 V
Power I/O	Input	
Connectors	IEC	
Cord plug	Edison	

### Operation

Heat-up Time	Tank Capacity	Fluid Consumption
5 min	2.5 L	8.2 ml / min

### Fog output

Ft <sup>3</sup> / min (m <sup>3</sup> / min)
1,200 (34)

### Approved Fluids

Chauvet® Haze Fluid (Gallon)
HFG

### Thermal

Maximum External Temp.	Cooling System
104° F (40° C)	Convection

### DMX

I/O Connectors	Connector Type	Channel Range
3-pin XLR	Sockets	2

### Ordering

Product Name	Item Code	Item Number
Hurricane™ Haze 2D	05070344	HURRICANEHAZE2D



UL 499, 13<sup>th</sup> Edition  
CSA C22.2 No. 64-10  
E113093

